



Volunteer Lake Assessment Program Individual Lake Reports

CHESHAM POND, HARRISVILLE, NH

MORPHOMETRIC DATA

Watershed Area (Ac.):	5,056	Max. Depth (m):	3	Flushing Rate (yr ¹):	24.2	Year	Trophic class	KNOWN EXOTIC SPECIES
Surface Area (Ac.):	74	Mean Depth (m):	1.3	P Retention Coef:	0.43	1984	EUTROPHIC	
Shore Length (m):	2,900	Volume (m ³):	471,500	Elevation (ft):	1152	2005	MESOTROPHIC	

TROPHIC CLASSIFICATION

KNOWN EXOTIC SPECIES

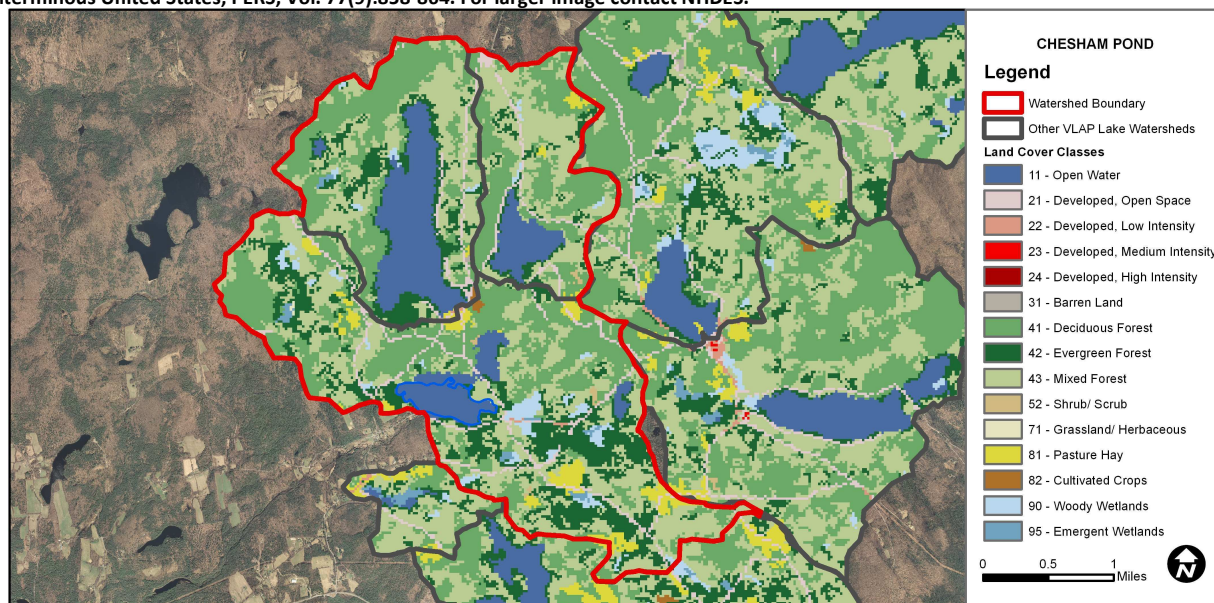
The Waterbody Report Card tables are generated from the 2012 305(b) report on the status of N.H. waters, and are based on data collected from 2001-2011.

Designated Use	Parameter	Category	Comments
Aquatic Life	Phosphorus (Total)	Likely Bad	The calculated median is fewer than 5 samples but > indicator and the chlorophyll a indicator is okay. More data needed.
	Oxygen, Dissolved	Likely Good	There are < 10 samples with 0 exceedances of criteria. More data needed.
	Dissolved oxygen satura	Likely Good	There are < 10 samples with 0 exceedances of criteria. More data needed.
	Dissolved oxygen satura	Likely Good	There are < 10 samples with 0 exceedances of criteria. More data needed.
	Chlorophyll-a	Likely Bad	The calculated median is fewer than 5 samples but > indicator. More data needed.
Primary Contact Recreation	Escherichia coli	Likely Good	There are no geometric means or there are > 2 single samples but those samples are within 75% of the geometric means criteria. More data needed.
	Chlorophyll-a	Likely Good	There are < 10 samples with 0 exceedances of indicator. More data needed.

BEACH PRIMARY CONTACT ASSESSMENT STATUS

WATERSHED LAND USE SUMMARY

Fry, J., Xian, G., Jin, S., Dewitz, J., Homer, C., Yang, L., Barnes, C., Herold, N., and Wickham, J., 2011. Completion of the 2006 National Land Cover Database for the Conterminous United States, PERS, Vol. 77(9):858-864. For larger image contact NHDES.





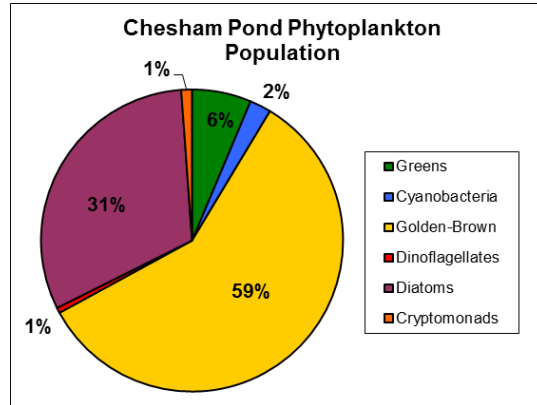
VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS

CHESHAM POND, HARRISVILLE, NH

2013 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (Refer to Table 1 and Historical Deep Spot Data Graphics)

- CHLOROPHYLL-A:** Chlorophyll levels were slightly below average for NH lakes, which is good.
- CONDUCTIVITY/CHLORIDE:** Epilimnetic (deep spot) and tributary conductivity were approximately equal to the NH lake median value and considered low.
- TOTAL PHOSPHORUS:** Epilimnetic (deep spot) phosphorus was equal to the NH lake median. Tributary phosphorus levels were in the low to average range for NH lakes.
- TRANSPARENCY:** Pond transparency was very good and the Secchi disk was visible on the pond bottom.
- TURBIDITY:** Epilimnetic (deep spot) and tributary turbidity levels were low.
- pH:** Epilimnetic, Chesham Inlet, Outlet, and Sunset Hill Inlet pH levels were sufficient to support aquatic life. Seaver Inlet pH was slightly less than the desirable range of 6.5 - 8.0 units.
- PHYTOPLANKTON:** A healthy and diverse phytoplankton (algae) population was measured in August.
- RECOMMENDED ACTIONS:** Continue monitoring program to establish baseline water quality conditions. After ten consecutive years of data collection, VLAP conducts historical water quality trend analysis to determine if water quality is improving, worsening or remaining stable. We look forward to visiting again in 2014!



Station Name	Table 1. 2013 Average Water Quality Data for CHESHAM POND						
	Alk.	Chlor-a	Cond.	Total P	Trans.	Turb.	pH
	mg/l	ug/l	uS/cm	ug/l	m	ntu	
					NVS		
Chesham Inlet			41.0	12		1.06	6.71
Epilimnion	3.30	3.26	39.5	12	2.45	0.82	6.55
Outlet			40.0	14		0.72	6.68
Seaver Inlet			36.0	8		0.26	6.45
Sunset Hill Inlet			40.0	13		0.83	6.64

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.

Alkalinity: 4.9 mg/L
Chlorophyll-a: 4.58 mg/m³
Conductivity: 40.0 uS/cm
Chloride: 4 mg/L
Total Phosphorus: 12 ug/L
Transparency: 3.2 m
pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.

Chloride: < 230 mg/L (chronic)
E. coli: > 88 cts/100 mL – public beach
E. coli: > 406 cts/100 mL – surface waters
Turbidity: > 10 NTU above natural level
pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation	Parameter	Trend	Explanation
pH	N/A	Ten consecutive years of data necessary.	Chlorophyll-a	N/A	Ten consecutive years of data necessary.
Conductivity	N/A	Ten consecutive years of data necessary.	Transparency	N/A	Ten consecutive years of data necessary.
			Phosphorus (epilimnion)	N/A	Ten consecutive years of data necessary.

